given every two or three hours, I have found to act almost magically in checking this discharge, and producing a rapid convalescence.

"I find, generally, that for young children the chlorate of potass with steel is not only the most pleasant, but the best remedy, bringing back the colour to the lips and cheeks sooner than anything else.

"In cases of croup, I give a grain of calomel and two grains of ipecacuan as a mild emetic every two, three, or four hours; and during the intervals, the steel mixture with nitrate of potass, and small doses of chloroform; applying externally, to the throat and chest, fomentations of hot mustard and water. The calomel and ipecacuan are discontinued as soon as the urgent symptoms pass off; but the steel is continued, with chlorate instead of nitrate of potass." —*British Medical Journal*, Oct. 22, 1864.

13. *Bromide of Potassium in Epilepsy.*—Dr. ROBERT M'DONNELL adds his testimony (*Dublin Quarterly Jour. Med. Sci.*, Feb. 1864) to that of Sir Charles Locock, Dr. Brown-Séquard, Dr. C. B. Radcliffe and others as to the efficacy of the bromide in certain cases of epilepsy. He relates several cases, and states that these with other similar cases have led him to the belief that we have in the bromide of potassium a remedy of considerable efficacy in epileptiform disease when connected with uterine derangement, but he admits that it will not succeed in all cases of this kind.

"With reference to the dose," he says, "from a not inconsiderable experience in the use of this medicine, I can state that it may be given with perfect confidence and safety, in much larger quantities than it is usually prescribed. I have given thirty or forty grains, and even more, three times a-day, for months without observing any bad results; and of this I am certain, that often such a dose as ten grains three times a day is too small to develop any good result.

"Although the independent testimony of several practitioners points to cases of epilepsy, with derangement of the uterine functions, as those in which the bromide of potassium is most likely to be beneficial, yet there are others in which its effects are unquestionably good."

14. *Therapeutic Value of the Alkaline and Earthy Sulphites in the Treatment of Catalytic Diseases.*—H. R. DERICCI, deeply impressed with the value of the discovery of Prof. Polli, relative to the action of the sulphites in certain forms of disease, has devoted much time to the investigation of the therapeutic properties of these salts. He first tried them on himself, and finding them harmless even in doses of a scruple five or six times a day, he began to administer them in every case where he thought a catalytic poison might be a cause of disease. In the *Dublin Quarterly Journal of Medical Science*, for August, 1864, he relates some cases which he conceives to illustrate the remedial powers of the sulphites.

"The first case I shall describe," he observes, "is one of great interest and value in a clinical point of view; it was undoubtedly a case of infection from an animal poison. The patient was almost given over as lost, so severe were the symptoms of the disorder; yet the patient recovered, and the treatment consisted solely in the administration of the bisulphite of soda, in full, repeated, and continued doses.

A lady of about forty-five years of age, of sound constitution, and in the enjoyment of excellent health, was suddenly called, about a year ago, to the death-bed of one who was very dear to her. That death-bed was fearfully sudden and unexpected, and that poor lady could not be persuaded, long after death had indubitably taken place, that the spirit of the beloved one had really fled. She would not leave the corpse; she threw herself on it, and kissed it over and over again, and could not be induced to leave it, even when the discoloration of the skin and the offensive smell of rapidly-advancing decomposition gave ample testimony of the reality of death. The burial was performed two days after death, owing to the rapid decomposition of the body; and soon after the funeral, I was hastily summoned to the bedside of this lady, whom I found in the following condition. It was about five in the morning when I entered the bedroom. She had gone to bed the night before quite calm and resigned, and on the pre-

vious day she had partaken fairly of food, but had not eaten anything which could in any way account for the state in which I found her, of which the following is a fair sketch: The windows of the bedroom being open, the morning light streamed freely into the room, and as I approached the foot of the bed I had a full view of the patient's face. To those of my readers who, like myself, have been familiar with the victims of cholera I shall simply say that the patient looked like one in cholera, in the stage of collapse. To those who have not yet had the melancholy opportunity of witnessing a case of that terrible disease I shall say that I hardly recognized my friend, so altered, and pinched, and ghastly were her features. Her eyes were sunk, and surrounded by a lead-coloured zone; her cheeks, which, but a day before, were plump and ruddy, were now hollow and sunk; her eyes were glassy; her pulse scarcely to be felt, the surface of the body cold; her breath cold; her tongue cold; her voice low and husky; her faculties perfectly clear. She now lay quite prostrate on her back; but for some hours previously had suffered greatly from vomiting, cramps, and diarrhœa, which was of the characteristic rice-water appearance always observed in cholera. I at once administered a full supply of hot brandy and water, ordered turpentine stupes to the abdomen and limbs, treating the case exactly as one of Asiatic cholera; and, being fully alive to the grave nature of the attack, requested for further advice, and at once sent off for my valued friend, the late Dr. Mayne. At first I felt singularly at a loss how to account for so sudden and so severe an attack of what seemed to be a genuine case of Asiatic cholera. So true was it to symptoms that, when Dr. Mayne looked at the patient, he whispered to me: 'If cholera were in the country, one would not hesitate to give this case a name.' The clue to the disease was, however, given to me, in a few words, by the patient herself. As soon as she had taken the brandy she said to me: 'The smell of the body was dreadful; I cannot get rid of it in any way;' and immediately she began to retch. She had given me the key, and the mystery of her case was solved. It was no doubt a case of putrid infection —of septicæmia; and if there was any truth in the 'sulphite' theory it should prove of value in such a case as this. I at once ordered a strong solution of bisulphite of soda in infusion of quassia, with tincture of bitter orange-peel and Battley's sedative—two drachms of the bisulphite to the ounce—and gave it in large teaspoonful doses, every half-hour at first, and then every hour, each dose containing nearly twenty grains of the bisulphite. I watched this case incessantly myself, day and night, and the result was most satisfactory. All the symptoms by degrees abated, and in a very few days the patient was fully convalescent. Dr. Mayne, who had anxiously watched this case with myself, was so impressed with the result obtained that he told me he would give the remedy a full trial in every case of scarlatina that should come under his care; and, in addition, promised (at my suggestion) that he would prescribe a dose of the sulphites daily to every healthy member of the family in which there was a case of scarlatina, to test its value as a prophylactic; for if a sulphite could destroy a catalytic principle, even when developed in the system, it should also have the power of preventing the development of that principle from the commencement.

As I stated above, the lady recovered, and, apparently, was restored to absolute health; she, however, complained to me occasionally of wandering pain, and general *malaise* at times, which she could not account for. About five months after her recovery she hurt her leg; it was a very trifling abrasion, but it assumed an angry look, and seemed determined not to heal, when, at the end of two months, she broke out all over with an extraordinary eruption, more like erythema-nodosum than anything else, when I at once placed her again on bisulphite of soda, in the supposition that some of the poison was still lurking in her blood, when the sore in the leg rapidly healed and the eruption disappeared, leaving the patient perfectly well.

The next two cases in my list were well-marked types of measles. I shall not take up the time of my readers by giving the details of them. I shall merely state that they were severe cases; that they were treated solely with bisulphite of soda, in scruple doses, every second or third hour, and that both cases grew rapidly well.

The fourth case is one of poisoned wound. A. B., aged about thirty-five, a gardener, was grafting a cactus, and in carelessly handling such a thorny plant, got the back of his left hand severely stung in different places. He plucked out as many of the spines as he could discover, and thought no more about the matter; but in the course of twelve hours or so the hand began to swell and be painful. He at once wrapped it up in a poultice; but the pain and swelling not abating, his employer sent him to me, three days after he had been stung. I found his hand enormously swelled, of a dusky purple colour, with large bullæ over the dorsum; the forearm also swelled, though not discoloured, but presenting several longitudinal red lines running up to the elbow. The man complained of great pain locally, of intense thirst, headache, loss of appetite, shivering, and general feeling of sickness. His tongue was furred and brown. He had, of his own accord, taken a dose of senna and salts that morning. I at once made an incision in the dorsum of the hand, and some pus came out. It was not, however, like cutting into an abscess—no gushing of matter took place, only an oozing, like as if I had cut into a sponge saturated with pus. I therefore made a second incision, parallel to the first, from which some more pus came out; ordered him to wrap up the hand in a large linseed-meal poultice, and prescribed the bisulphite of soda, in scruple doses, every second hour. I desired the man to keep quiet at home—without, however, ordering him to keep his bed; directed him to take light nutritious food, and to drink two pints of XX porter in the day. The following day the hand looked better; it was less swollen and purple, and the pus was in larger quantity and better looking. The man felt also better; he had less thirst, and had only had two slight shiverings. The bowels not having been freed, I ordered him some sulphur, with magnesia and scammony, as an aperient, and to persist with the bisulphite, taking it now every third hour. The following day the man was so much improved that he called on me. The hand looked still better; the incisions which I had made had ulcerated somewhat round their edges, but the suppuration was free, and the pus seemed quite healthy; there was no pain in the arm, and the red lines were very much paler. Matters looking so very much better, I desired the man to take the sulphite only three times in the twenty-four hours; to take a good allowance of food; to stay much in the open air; but to still keep the arm in a sling, and the hand wrapped in a poultice. Two days later he again came; when, finding that all swelling had subsided, all pain gone, all red lines disappeared, the sore inclined to granulate, I stopped the poultice, and desired him to dress the hand with some warm dressing, containing a little balsam of Peru, and to take one scruple of the bisulphite twice a day. Two days after the man returned to me, not looking as well as at the previous visit. He had a yellowish tinge in his skin; his tongue was foul; he complained of chilliness, almost amounting to shivering, and the sore at the back of the hand looked unhealthy and angry. On stripping the arm, the red lines were again visible, but of a very pale red; while above the elbow, from its bend to the axilla, a hard, knotty, and extremely painful cord could be felt and seen running up parallel to the brachial artery. I at once returned to the primary doses of bisulphite, wrapped up the hand in a poultice, and watched to see what the result would be. The man immediately began to mend, and in four days not a trace of hardness was to be felt. Fearing, however, a relapse, I continued administering four scruples of bisulphite daily for ten days longer, by which time the hand was perfectly healed, and the man returned to his work.

Two better cases for testing the effects of sulphites could not possibly have been selected; in both cases the disease clearly resulted from the working of a poisonous element in the blood, evidently introduced from without in the first case, whilst it may in the second case have originated within the system subsequent to the stinging with the thorns, if one does not feel justified in considering cactus thorns as poisonous of themselves; be this, however, as it may, the second case was as clearly one of purulent absorption as the first was of putrid infection—the red lines up the arm marking the course of the inflamed lymphatics as the hard knotty condition of the veins denoting the phlebitic inflammation. Both were treated solely with sulphites, and both completely recovered. It would be great presumption, no doubt, to say that in both cases the patients

would have lost their lives except for the saving properties of the bisulphite of soda administered; but I still cannot avoid believing that the sulphurous acid did prevent the spreading of the catalytic principle by rendering it incapable of reproducing itself;[1] and, while keeping it in abeyance, allowed time for its elimination by the ordinary powers of nature; and I think we have a confirmation of this view in the occurrence of a relapse in both cases, where it would appear as if, when the bisulphite was stopped, all the poison had not yet been eliminated, the blood disease breaking out again the moment that the poison was freed of its antagonist; and a cure being effected by administering more of anti-catalytic remedy until every trace of the animal poison was eliminated."

15. *Chloroform in the Treatment of Asthma.*—Dr. Hyde Salter, whose experience in the treatment of asthma is so very extensive, asserts (*Lancet*, Nov. 5, 1864), that "the inhalation of chloroform is, beyond doubt, one of the most powerful methods of the treatment of the asthmatic paroxysm that we possess, as it is, also, necessarily, one of the most recent. Many patients have an objection to it, and there is the practical difficulty of the necessity, or the supposed necessity, of the presence of the medical attendant for its safe administration; and therefore in a great many of my cases patients have preferred using other remedies, and have not tried it. But I have notes of thirteen cases in which I have watched its employment, in none of which was it inoperative; in twelve it did good, in one it did positive harm. But I believe this last case is extremely rare, and that not in one case in fifty or a hundred would chloroform increase the asthmatic spasm; of all the cases in which I have known or heard of its being given, I have never heard, except in this case, of its increasing the asthma.

"A more common fault of it, and a very serious fault, is that the relief which it gives is transient, and in many cases merely coextensive with the insensibility that is produced. Indeed, it is the *rule* for the beneficial effect of the chloroform to pass off, in a greater or less degree, with the insensibility. This, however, is not always the case, for in some instances when the insensibility passes off the asthma does not reappear; in some the relief is produced without any insensibility whatever; and in some a very small dose is sufficient to give relief, the patient immediately passing into a tranquil sleep, which may continue for hours, and from which he will wake with the asthma gone, although the original dose was far short of enough to produce the true chloroform sleep.

"There can be no doubt, I think, that chloroform dissipates the asthmatic spasm by relaxing muscular contraction, just as it will dissipate hysterical contraction of the *rectus abdominis*, and thus disperse a phantom tumour, and that it acts through the general nervous system. But I have seen one case, which I shall relate, in which it seemed to act directly on the bronchial muscle. I conclude this to have been so because I think the effect was too immediate for it to have taken place *via* the circulation and the general nervous system: the first act of inspiration would be accompanied with a sensible relief long before the blood charged with the chloroform could have reached the nervous centres.

"Patients and their friends have often asked me if there was not danger in giving such an agent as chloroform in the height of an asthmatic paroxysm. And truly, looking at the alarming state of semi-asphyxia to which the asthmatic paroxysm often amounts—the turgid face, the small pulse, the struggling respiratory muscles, the almost absolute standstill to which both respiration and circulation are brought—one would be apt to think that it would take very little more to stop both the one and the other, and that it was not exactly the condition for which to administer a drug having so depressing an influence on both these functions. I can only say, however, that I have given chloroform in the very agony of the worst attacks; that so far from fearing it under such circum-

[1] The action of the sulphites on zymotic or catalytic principles is very peculiar; it does not seem to kill them outright, but only to neutralize their action for the time being, so that in treating a case depending on a catalytic poison a relapse may be surely expected if the remedy is discontinued too soon, and before the powers of nature have been able to eliminate it completely from the system.